

Testing of IgG and IgG₄ to foods is not recommended

Position of the German Society of Allergy and Clinical Immunology (DGAKI)^a, the Physician's Society of German Allergists (ÄDA) and the Society of Pediatric Allergy and Environmental Medicine (GPA), the Austrian Society of Allergy and Immunology (ÖGAI) and the Swiss Society of Allergy and Immunology (SGAI) after Adoption of the *Task Force Report*^b of the *European Academy of Allergy and Clinical Immunology* (EAACI)

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Preamble

The position of the European Academy of Allergy and Clinical Immunology (EAACI) on immunoglobulin G (IgG) testing to foods [1] has been well received and its entire content has been adopted as a translated version by the German, Austrian and Swiss Allergy Societies.

Due to current scientific understanding IgG(4) antibodies to foods should not be misinterpreted as an indicator for disease causing mechanisms but rather as a sign of a normal (physiological) human immune response after repeated exposure to food components. Therefore, the allergen specific measurement of IgG or IgG₄ antibodies to foods is useless and is definitely not recommended for the work-up and diagnosis of various types of food hypersensitivity [2–5].

This is also true for chronic diseases and health complaints, falsely believed to be caused by an underlying food hypersensitivity, which has not yet been diagnosed. These health problems include chronic inflammatory bowel diseases like irritable bowel disease, Crohn's disease, colitis ulcerosa, inflammatory skin diseases like acne, atopic eczema, psoriasis and general symptoms like migraine, chronic

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fatigue, obesity and numerous others. The commonly used argument for IgG measurements often falsely exchanges cause and effect. More specifically, elevated physiological IgG concentrations to foods are often blamed as a cause for inflammatory responses, instead of being interpreted as a consequence of such pathology.

For none of these above-mentioned diseases and health complaints has scientific evidence based on valid, controlled studies been established, indicating that the presence of serum IgG or IgG4 antibodies to foods might have a diagnostic value or could represent a pathological finding. Measurements of IgG antibodies to foods are therefore not recommended. This conclusion is not necessarily based on technical assay flaws, but rather on rejecting the misleading interpretations of such test results, which are often abused as a reasoning to recommend unjustified and frequently drastic diets. These diets will increase the pressure of suffering, decrease the quality of life, promote uncertainty and even place these subjects at further health risks.

At present there is no indication for IgG or IgG4 antibody tests to food items. This type of diagnostic procedure is strictly not recommended due to a lack of evidence from properly controlled studies. The authors speaking for the German-language allergy societies, therefore adopt the European position in its present form as outlined above.

References

1. Stapel SO, Asero R, Ballmer-Weber BK, Knol EF, Strobel S, Vieths S, et al., EAACI Task Force. Testing for IgG₄ against foods is not recommended as a diagnostic tool: EAACI Task Force Report. *Allergy* 2008;63:793–6.
2. Kleine-Tebbe J, Ballmer-Weber BK, Beyer K, Erdmann S, Fuchs T, Henzgen M, et al. In-vitro-Diagnostik und molekulare Grundlagen von IgE-vermittelten Nahrungsmittelallergien. Leitlinie von DGAKI, ÄDA, GPA, ÖGAI und SGAI. *Allergo J* 2009; 18:132–46.
3. Kleine-Tebbe J, Fuchs T, Lepp U, Niggemann B, Saloga J, Vieluf I, et al. In-vitro-Diagnostik von Nahrungsmittel-Allergien. *Allergo J* 2001;10:333–9.
4. Renz H, Becker W-M, Bufer A, Kleine-Tebbe J, Raulf-Heimsoth M, Saloga J, et al. In-vitro-Allergiediagnostik. Positionspapier der Deutschen Gesellschaft für Allergologie und klinische Immunologie (DGAKI). Arbeitsgruppe „In-vitro-Allergiediagnostik“ der Sektion Immunologie. *Allergo J* 2002;11:492–506.
5. Renz H, Biedermann T, Bufer A, Eberlein B, Jappe U, Ollert M, et al. In-vitro-Allergiediagnostik. Leitlinie der Deutschen Gesellschaft für Allergologie und klinische Immunologie (DGAKI) unter Beteiligung des Ärzteverbandes Deutscher Allergologen (ÄDA), der Gesellschaft für Pädiatrische Allergologie und Umweltmedizin (GPA) und der Deutschen Dermatologischen Gesellschaft (DDG). *Allergo J* 2010;19:110–28. (www.uniduesseldorf.de/AWMF/II/061-017.htm).